

## **REMARKS/ARGUMENTS**

### **1. Amendments to the Specification**

The specification is amended to correct the informalities indicated by the examiner. The plain texts of GSM, SACCH, and GPRS have been added to the specification paragraphs  
5 [0005] and [0028]. Also, in paragraph [0019], the digital signal processing module 8 is amended to read "digital signal processing module 16". No new matter is introduced. Consideration of these specification amendments is respectfully requested.

### **2. Claim Rejections – 35 USC 102**

10 Claims 1, 8, 9, 10, 17, 18, 19, 26, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Stoter et al. (US2003/0026363).

#### **Response:**

#### **The difference between the present invention and Stoter**

There are apparent differences between Stoter and the present invention. Stoter discloses  
15 a method for controlling the automatic gain, such that the received signal can be adjusted to a desired dynamic range, and the bit error of the data block can be decreased thereby (Abstract). Also, Stoter utilizes the mechanism as follows to solve this problem:" Before or at the very beginning when substantial data in a data block are processed in the amplifier the gain of that amplifier is rapidly adjusted or preset to a predetermined signal level for that data block. By  
20 adapting the gain of the amplifier before or just as the data in the block are processed by the amplifier before or just as the data in the block are processed by the amplifier to an appropriate level, the received signal can be adjusted to a desired dynamic range." (paragraph 0007).

However, the purpose of the present invention is to solve the problems that the number  
25 of the frames utilized as samples for automatic gain control is too small (paragraph 0006). The mechanism utilized by the present invention to solve this problem is detecting if the signal block is in discontinuous mode, and utilizes all the frames in the signal block which is

not in discontinuous mode as samples for performing gain control. (paragraph 0029).

Therefore, the main purpose and the main mechanism of the present invention and Stoter are substantially different.

Claim 1

5       The examiner states that the characteristic of “determining if the signal block is in discontinuous transmission or rapidly changing mode than using the gain value of the AGC based upon the previous frame” is disclosed in paragraphs 0031, 0043, 0046 of Stoter.

10       However, the paragraph 0031 of Stoter discloses that the signal level differs apparently if the signal is in discontinuous mode. As described above, Stoter discloses a method for controlling the automatic gain, such that the received signal can be adjusted to a desired dynamic range, and the bit error of the data block can be decreased thereby (Abstract). The paragraph 0043 of Stoter discloses the detail steps for utilizing AGC method to solve the rapid changing signal levels of rapid changing signal, that is, the detail description of Fig.10. The paragraph 0046 of Stoter discloses what advantage will be got if the method shown in  
15       Fig.10, 11, and 12 is applied to a discontinuous system. Theses cited paragraphs do not teach or indicate that Stoter utilizes any mechanism to detect if the received signal is in discontinuous mode, and adjust the gain value according the mode of the signal, which is an apparent limitation of the present invention, as described above. Therefore, claim 1 should have novelty over Stoter.

20       Additionally, claim 1 further includes limitations of “**resuming** the gain value according to **the power level of the baseband signal corresponding to a third frame** if the first signal block is in the discontinuous transmission mode (*emphasis added*)”, and “**the third frame** belongs to a third signal block which is sent before the first signal block and the third signal block **is not in the discontinuous transmission mode** (*emphasis added*)”. However, the  
25       applicant asserts above limitations are not taught or suggested by Stoter’s teachings.

In light of above statements, the applicant believes claim 1 has been placed in condition for allowance. Reconsideration of claim 1 is respectfully requested.

Claims 10 and 19

Claims 10 and 19 are corresponding apparatus claims of claim 1, which also include the limitation of “detecting the discontinuous mode” and “resuming the gain value according to the power level of the baseband signal corresponding to a third frame if the first signal block is in the discontinuous transmission mode”. Therefore, the applicant believes claim 10 and 19 should also be allowed as claim 1 has been placed in condition for allowance. Reconsideration of claims 10 and 19 is respectfully requested.

Claims 8, 9, 17, 18, 26 and 27

Claims 8, 9, 17, 18, 26 and 27 are dependent upon respective claims 1, 10, and 19, and should be allowed if claims 1, 10, and 19 are found allowable.

**3. Claim Rejections – 35 USC 103**

Claims 2, 4, 5, 7, 11, 13, 14, 16, 20, 22, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stoter et al (US2003/0026363) in view of Ruohonen (US 2002/0163980).

**Response:**

Claims 2, 11 and 20

As claims 2, 11, and 20 are dependent upon respective claims 1, 10, and 19, they should be allowed if claims 1, 10, and 19 are found allowable.

Claim 4

Claim 4 includes detail steps of how to determine if the first signal block is in the discontinuous transmission mode or not. In this claim, the number of **valid frames in one block** are computed to determine if the first signal block is in the discontinuous transmission mode. However, Ruohonen discloses a mechanism for determining **reference level** of AGC according to **the number of valid radio blocks** (abstract), rather than valid frames in the block.

Please refer to Fig.1 of Ruohonen or Fig.1 of the present invention, the frames and the

signal blocks, as known to those skilled in the art, are different units of signals. A block can have one or more frames. Therefore, Ruohonen and the present invention detect different signal units (i.e., frames and blocks) to achieve different objectives. Thus Ruohonen does not teach or disclose the claimed limitations recited in claim 4, and claim 4 therefore is neither  
5 taught nor suggested by combined teaching of Stoter and Ruohonen.

Additionally, claim 4 is dependent upon claim 1, and should be allowed if claim 1 is found allowable.

Claims 13 and 22

10 Claims 13 and 22 are apparatus claims corresponding to claim 4. Referring to above statements under Claim 4, the applicant asserts that claims 13 and 22 are not taught or suggested by combined teaching of Stoter and Ruohonen. Additionally, claims 13 and 22 are dependent upon respective claims 10 and 19, and should be allowed if claims 10 and 19 are found allowable.

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Claims 5, 7, 14, 16, 23 and 25

Claims 5, 7, 14, 16, 23, and 25 are dependent upon respective claims 1, 10, and 19, and should be allowed if claims 1, 10, and 19 are found allowable.

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Claims 3, 12 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stoter et al (US2003/0026363) in view of Cahill (US 5083304).

**Response:**

Claims 3, 12 and 21 are dependent upon respective claims 1, 10, and 19, and should be  
25 allowed if claims 1, 10, and 19 are found allowable.

Claims 6, 15 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stoter et al (US2003/0026363) in view of Abramsky (US 6052566).

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**Response:**

Claims 6, 15 and 24 are dependent upon respective claims 1, 10, and 19, and should be allowed if claims 1, 10, and 19 are found allowable.

5           Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Sincerely yours,

10    Winston Hsu

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